

## EAST Search History

## EAST Search History (Prior Art)

| Ref # | Hits | Search Query   | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|--|---|------------------|---------|---------------------|
| L12   | 4269 | (210/109,321.69,108,321.65,427,136,106).CCLS.                            | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO                   | OR               | OFF     | 2011/08/04<br>22:54 |
| L13   | 18   | 12 and (permeate and retentate and valve and controller and circulation) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO                   | OR               | OFF     | 2011/08/04<br>22:55 |
| S2    | 1    | ("20030132175").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO                   | OR               | OFF     | 2008/08/29<br>12:46 |
| S3    | 2    | ("0588348").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2008/08/29<br>12:58 |
| S4    | 2    | ("0595689").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2008/08/29<br>12:58 |
| S5    | 8    | ("1020180").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR               | OFF     | 2008/08/29<br>12:58 |

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| S6  | 4 | ("2586202").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>12:59 |
| S7  | 9 | ("1043053").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>13:00 |
| S8  | 4 | (10/224513).APP. | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>13:00 |
| S9  | 2 | ("0110540").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>13:01 |
| S10 | 0 | (01/10540).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>13:01 |
| S11 | 2 | ("0110540").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>13:01 |
| S12 | 2 | ("0588348").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2008/08/29<br>13:02 |

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| S13 | 349 | (210/321.69).CCLS.  | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/08/29<br>13:45 |
| S14 | 465 | (210/321.69).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/08/29<br>13:45 |
| S15 | 30  | S14 and (((shut adj2 off) or (shutoff)) near3 valve   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/08/29<br>13:46 |
| S16 | 464 | (210/109).CCLS.   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/02<br>12:40 |
| S17 | 722 | (210/108).CCLS.   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/02<br>13:01 |
| S18 | 53  | "210"/\$.ccls. and (permeate or retentate) and membrane and (((shut adj off) or shutoff) adj4 valve) and pump   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/03<br>10:46 |
| S19 | 7   | ("2310978"   "4242061"   "5203803"   "5261792"   "5460716"   "5503736").PN.   | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2008/09/03<br>12:17 |
| S20 | 7   | ("2310978"   "4242061"   "5203803"   "5261792"   "5460716"   "5503736").PN.   | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2008/09/03<br>12:18 |
| S21 | 3   | ("6068764").URPN.   | USPAT                                     | OR | OFF | 2008/09/03<br>12:18 |
| S22 | 4   | "210"/\$.ccls. and (permeate or retentate) and membrane and (((shut adj off) or shutoff) adj4 valve) and pump and (back adj puls\$3)  | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/03<br>12:54 |
| S23 | 7   | "210"/\$.ccls. and (permeate or retentate) and membrane and (((shut adj off) or shutoff) adj4 valve) and pump and ((back adj puls\$3) or (back adj wash\$3) or backwash)    | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/03<br>12:55 |
| S24 | 7   | "210"/\$.ccls. and (permeate or retentate) and membrane and (((shut adj off) or shutoff) adj4 valve) and pump and ((back adj puls\$3) or (back adj wash\$3) or backwash\$3) | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/03<br>13:05 |

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| S25 | 1     | ("20050205478").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/09/03<br>14:31 |
| S26 | 2     | ("2005/0205478").URPN.  | USPAT                                     | OR | OFF | 2008/09/03<br>14:50 |
| S27 | 18    | "210"/\$.ccls. and (microfilt\$5 or ultrafilt\$5 or (micro adj filt \$5) or (ultra adj filt\$5) or osmosis) and membrane and ((shutoff or shut adj off) near3 valve) and (backwash\$3 or (back adj wash\$3) or (back adj puls\$3) or backpuls\$3) | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2008/09/03<br>15:26 |
| S28 | 1398  | (210/136).CCLS.   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/03<br>16:30 |
| S29 | 67    | S28 and ((shut adj off) or shutoff) adj valve   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/03<br>16:31 |
| S30 | 13    | ("3959146"   "4629568"   "4705625"   "4784771"   "4961851"   "4981157"   "5122265"   "5132015"   "5512167"   "5658457"   "6074551"   "6110360"   "6190558").PN.   | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2008/09/03<br>16:31 |
| S31 | 349   | (210/321.69).CCLS.  | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/04<br>10:36 |
| S32 | 465   | (210/321.69).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/09/04<br>10:58 |
| S33 | 11651 | S32 and ((shut adj off) adj valve) or (shutoff adj valve)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/09/04<br>10:59 |
| S34 | 11658 | S32 and ((shut adj off) near3 valve) or (shutoff adj valve)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/09/04<br>10:59 |

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| S35 | 30   | S32 and ((shut adj off) or shutoff) near3 valve  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2008/09/04<br>11:00 |
| S36 | 24   | ("3837765"   "3957637"   "4219421"   "4753733"  <br>"4755290"   "4921610"   "4955953"   "4978506"  <br>"4986918"   "5009775"   "5011603"   "5011607"  <br>"5047154"   "5128107"   "5234605"   "5240612"  <br>"5252218"   "5354466"   "5393433"   "5512167"  <br>"5520816"   "5580221"   "5589076"   "5778671").PN. | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2008/09/04<br>11:39 |
| S37 | 25   | ("5958243").URPN.  | USPAT                                     | OR | OFF | 2008/09/04<br>11:46 |
| S38 | 1    | ("6755970").PN.  | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2008/09/04<br>13:05 |
| S39 | 1    | "5011603".PN.  | USPAT; USOCR                              | OR | OFF | 2009/03/07<br>12:04 |
| S40 | 1    | "5011607".PN.  | USPAT; USOCR                              | OR | OFF | 2009/03/07<br>12:04 |
| S41 | 24   | ("3837765"   "3957637"   "4219421"   "4753733"  <br>"4755290"   "4921610"   "4955953"   "4978506"  <br>"4986918"   "5009775"   "5011603"   "5011607"  <br>"5047154"   "5128107"   "5234605"   "5240612"  <br>"5252218"   "5354466"   "5393433"   "5512167"  <br>"5520816"   "5580221"   "5589076"   "5778671").PN. | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2009/03/07<br>12:05 |
| S42 | 3927 | "210"/\$.cls. and (backwash\$3 or (back adj wash\$3) or<br>(reverse adj flow) or (backflow) or (back adj flow)) and<br>((valve with control\$4))   | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2009/03/07<br>12:17 |
| S43 | 3927 | "210"/\$.cls. and ((backwash\$3 or (back adj wash\$3) or<br>(reverse adj flow) or (backflow) or (back adj flow)) and<br>(valve with control\$4))   | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2009/03/07<br>12:18 |
| S44 | 927  | "210"/\$.cls. and ((backwash\$3 or (back adj wash\$3) or<br>(reverse adj flow) or (backflow) or (back adj flow)) and<br>(valve with control\$4)) and membrane  | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2009/03/07<br>12:39 |

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| S45 | 39  | "210"/\$.cls. and ((backwash\$3 or (back adj wash\$3) or (reverse adj flow) or (backflow) or (back adj flow)) and (((shut adj off) or shutoff) adj valve) with control\$4)) and membrane | US-PGPUB;<br>USPAT; USOCR                                   | OR | OFF | 2009/03/07<br>12:41 |
| S46 | 8   | ("1020180").PN.  | USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT              | OR | OFF | 2009/03/07<br>12:48 |
| S47 | 2   | ("0110540").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2009/03/07<br>13:07 |
| S48 | 2   | ("0010540").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2009/03/07<br>13:08 |
| S49 | 0   | ("wo110540").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2009/03/07<br>13:08 |
| S50 | 2   | ("2003132175").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT | OR | OFF | 2009/03/07<br>13:53 |
| S51 | 0   | ("2003132175").PN.   | US-PGPUB  | OR | OFF | 2009/03/07<br>13:53 |
| S52 | 1   | ("20030132175").PN.  | US-PGPUB  | OR | OFF | 2009/03/07<br>13:53 |
| S53 | 405 | (210/321.69).CCLS.   | US-PGPUB;<br>USPAT  | OR | OFF | 2009/03/09<br>11:13 |

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| S54 | 4  | "210"/\$.ccls. and (valve with camshaft with housing)   | USPAT                                     | OR | OFF | 2009/03/09<br>11:54 |
| S55 | 18 | ("1752908"   "1763942"   "2921603"   "3116755"  <br>"3207183"   "3403700"   "3468344"   "3679060"  <br>"3768654"   "3770247"   "3970109").PN. | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2009/03/09<br>12:00 |
| S56 | 14 | ("4274445").URPN.   | USPAT                                     | OR | OFF | 2009/03/09<br>12:04 |
| S57 | 18 | ("1752908"   "1763942"   "2921603"   "3116755"  <br>"3207183"   "3403700"   "3468344"   "3679060"  <br>"3768654"   "3770247"   "3970109").PN. | US-PGPUB;<br>USPAT; USOCR                 | OR | OFF | 2009/03/09<br>12:06 |
| S58 | 1  | ("20070158256").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO | OR | OFF | 2009/09/18<br>12:59 |
| S59 | 1  | ("5958243").PN.   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2011/08/04<br>15:27 |
| S60 | 1  | ("4749476").PN.   | USPAT;<br>USOCR; EPO;<br>JPO              | OR | OFF | 2011/08/04<br>15:36 |

## EAST Search History (I nterference)

| Ref # | Hits | Search Query   | DBs                         | Default Operator | Plurals | Time Stamp          |
|-------|------|--|-----------------------------|------------------|---------|---------------------|
| L14   | 3273 | (210/109,321.69,108,321.65,427,136,106).CCLS.                            | US-PGPUB;<br>USPAT;<br>UPAD | OR               | OFF     | 2011/08/04<br>22:56 |
| L15   | 18   | 14 and (permeate and retentate and valve and controller and circulation) | US-PGPUB;<br>USPAT;<br>UPAD | OR               | OFF     | 2011/08/04<br>22:56 |

8/ 4/ 2011 11:37:08 PM

C:\Documents and Settings\mgonzalez\My Documents\EAST\Workspaces\10597840-apparatus for micro or ultrafiltration.

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